

WHAT IS CLAIMED IS:

1. An electronic apparatus comprising:
a heat-generating component;
a main unit having a heat-receiving portion
5 thermally connected to the heat-generating component;
a display unit supported by the main unit;
a heat-radiating portion provided in the display
unit and radiating the heat generated by the heat-
generating component; and
10 a circulating path circulating liquid coolant
between the heat-receiving portion and the heat-
radiating portion,
wherein the heat-radiating portion includes
a first radiator and a second radiator which located,
15 respectively, at the upstream and downstream of the
liquid coolant, and the second radiator is exposed
outside the display unit.
2. The electronic apparatus according to claim 1,
wherein the first and second radiators have each
20 a coolant passage in which the liquid coolant flows.
3. The electronic apparatus according to claim 1,
wherein the display unit incorporates a display panel,
and the first and second radiators oppose one another
at the back of the display panel.
- 25 4. The electronic apparatus according to claim 3,
wherein the display unit has a front wall at which the
display panel is exposed and a back wall which faces

away from the front wall, and the second radiator is exposed at the back wall.

5 5. The electronic apparatus according to claim 2, wherein the second radiator has a first heat-radiating plate and a second heat-radiating plate which are laid one upon the other, and the coolant passage is provided between the heat-radiating plates.

10 6. The electronic apparatus according to claim 5, wherein the first heat-radiating plate is made of transparent material and exposed outside the display unit.

15 7. The electronic apparatus according to claim 6, wherein the first heat-radiating plate is made of synthetic resin that absorbs 0.4% of water at most, and the second heat-radiating plate is made of metal.

8. The electronic apparatus according to claim 6, wherein the liquid coolant is colored.

20 9. The electronic apparatus according to claim 1, further comprising:
a pump installed in the circulating path to deliver the liquid coolant and which starts to be driven when the temperature of the heat-generating component reaches a predetermined value.

25 10. The electronic apparatus according to claim 1, further comprising:

a cooling-air passage provided between the first and second radiators and in which cooling air flows.

11. The electronic apparatus according to
claim 10, wherein the second radiator has a first
heat-radiating plate and a second heat-radiating plate,
which are laid on upon the other, the second heat-
5 radiating plate has a bulging part which wells from
the first heat-radiating plate and which opens to the
first heat-radiating plate, the first heat-radiator
plate closes the opening of the bulging part, forming
a coolant passage in which the liquid coolant flows,
10 and the bulging part of the second heat-radiating plate
is exposed to the cooling-air passage.

12. The electronic apparatus according to
claim 10, further comprising an electric fan which
applies cooling air into the cooling-air passage and
15 which is provided in the display unit.

13. An electronic apparatus comprising:
a heat-generating component;
a main unit having a heat-receiving portion
thermally connected to the heat-generating component;
20 a display unit supported by the main unit;
a heat-radiating portion provided in the display
unit and radiating the heat generated by the heat-
generating component;
a circulating path circulating liquid coolant
25 between the heat-receiving portion and the heat-
radiating portion; and
a fan provided in the display unit and which

applies cooling air to the heat-radiating portion,
wherein the heat-radiating portion includes
a first radiator and a second radiator which located,
respectively, at the upstream and downstream of the
liquid coolant, the first and second radiators have
a coolant passage each, in which the liquid coolant
flows, and oppose each other in the direction of
thickness of the display unit and forming a cooling-air
passage, and the second radiator is exposed outside the
display unit.

10 14. The electronic apparatus according to
claim 13, wherein the first and second radiators have
each a first heat-radiating plate and a second heat-
radiating plate laid upon the first heat-radiating
plate, the second heat-radiating plate has a bulging
part which swells from the first heat-radiating plate,
and which opens to the first heat-radiating plate, the
first heat-radiating plate closes the opening of the
bulging part, forming the coolant passage, and the
bulging part of the second heat-radiating plate is
exposed to the cooling-air passage.

20 15. The electronic apparatus according to
claim 14, wherein the bulging part of the first
radiator and the bulging part of the second radiator
are displaced from each other, not facing each other.
25 16. The electronic apparatus according to
claim 13, wherein the second radiator is smaller than

the first radiator.

17. An electronic apparatus comprising:

a heat-generating component;

a main unit having a heat-receiving portion

5 thermally connected to the heat-generating component;

a display unit supported by the main unit;

a heat-radiating portion provided in the display unit and radiating the heat generated by the heat-generating component;

10 a circulating path circulating liquid coolant between the heat-receiving portion and the heat-radiating portion; and

a reservoir provided in the display unit, which contains liquid coolant to flow in the circulating passage, which is located at the downstream of the liquid coolant with respect to the heat-radiating portion, and which is exposed outside the display unit.

15 18. The electronic apparatus according to claim 17, further comprising a cooling-air passage provided between the heat-radiating portion and the reservoir and an electric fan which applies cooling air into the cooling-air passage.

20 19. The electronic apparatus according to claim 17, wherein the reservoir is made of transparent material and the liquid coolant is colored.

25 20. The electronic apparatus according to claim 19, wherein the reservoir has a scale which is

exposed outside the display unit and against which the level of the liquid coolant in the reservoir is checked to determine the amount of the liquid coolant.